

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 8/15/2008 has been entered.

Information Disclosure Statement

An initialed and dated copy of Applicant's IDS form 1449, filed 8/15/2008, is attached to the instant Office action.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Sung Kim (Registration # 45,398) on 5/29/2008.

AMENDMENTS TO THE CLAIMS

In claim 27, line 2, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 28, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 29, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 30, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 31, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 32, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 33, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 34, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 35, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 36, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 37, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 38, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 39, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 40, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 41, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 42, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 43, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 45, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 46, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 47, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 48, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 49, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 50, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 51, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

In claim 52, line 1, **DELETE** ~~readable~~ **INSERT** readable storage

REASON FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

The prior art of record, Aggarwal et al. ("Aggarwal" US # 6,922,700 B1), Rao et al. ("Automating Physical Database Design in a Parallel Database"; Rao et al. 2002; Proceedings of the 2002 ACM SIGMOD International Conference on Management of Data. Pp. 558-569), and Wang ("Wang" US # 5,758,345) teach analogous art to the instant application, that of managing data stored in a database to improve the performance of a database. Aggarwal more specifically teaches a method to build indexes through the partitioning of data represented in a multidimensional space for more efficient database searches. However, after careful consideration of the Brief (pages 15-

21) filed 3/24/2008 and the personal interview conducted 3/19/2008, the applicant extensively and specifically pointed out how the claim amendment overcomes the prior art of record, particularly the data partitions of Aggarwal being compiled from various separate entities of server logic, and not combined or merged into a pool of horizontally partitioned structures from which a set of physical structures can be selected. Aggarwal teaches that the data partitions to build a grid index only results in a single entity, whereas the instant invention teaches that there is a pool of partitioned candidate structures that are augmented and analyzed for the optimal set of partitioned physical structures. The prior art of Aggarwal and Rao do not disclose a method to merge horizontal partitioning method that are associated with the aforementioned pool of partitioned structures, as the partitioning methods are utilized when combining the pool of partitioned candidate structures. This, in the instant application, the merging of horizontal partitioned structures and partitioning methods are utilized to augment a potentially more useful pool of partitioned candidate structures.

This feature is indicated in independent claims 1, 27, 53, and 60 wherein augmenting the pool of partitioned candidate structures by determining generalized partitioned structures that are relevant over a set of queries in the workload and adding them to the pool of partitioned candidate structures, wherein determining generalized partitioned structures is performed by merging partitioned structures in the pool of partitioned candidate structures and merging the horizontal partitioning methods associated with the partitioned structures in the pool. Consequently, independent claims

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1, 27, 53, and 60 and dependent claims 2—7, 19-43, 45-58, and 61-65 as amended are allowable over prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANGELINO N. GORTAYO whose telephone number is (571)272-7204. The examiner can normally be reached on M-F 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dangelino N Gortayo/
Examiner, Art Unit 2168

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